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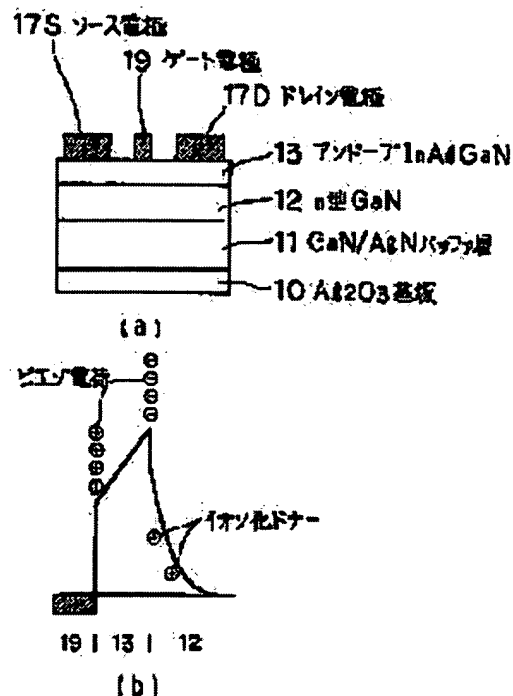
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(54) HETEROJUNCTION FIELD EFFECT TRANSISTOR

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an HJFET structure in which a depletion type FET and enhancement type FET can be fabricated separately by improving the controllability of threshold voltage.

SOLUTION: In a heterojunction field effect transistor having a substrate 10, a buffer layer 11 including at least one GaN layer, a channel layer 12, a gate insulation layer 13, a source electrode 17S, a drain electrode 17D and a gate electrode 19, the channel layer 12 has a composition shown by $\text{In}_z\text{Ga}_{1-z}$ ($0 \leq z < 1$), a gate insulation layer 13 is an InAlGaIn layer, the source electrode 17S and the drain electrode 17D come into ohmic contact with the channel layer 12 and the gate electrode 19 comes into Schottky contact with the gate insulation layer 13.



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